

ART. IV.—*Australian and Tasmanian Coleoptera Inhabiting
or Resorting to the Nests of Ants, Bees and Ter-
mites.*

SUPPLEMENT.

By ARTHUR M. LEA.

(With Plate II.)

[Read 11th April, 1912.]

Probably at no period in Australia has so much attention been paid to insects, occurring in the nests of ants, as during the last five years. The result has been that new and remarkable forms have been obtained in abundance. But, as immense districts of Australia have never been explored for insects of any kind, it is certain that large numbers remain to be discovered, and probably the numbers of insects now known to occur in the nests of ants will be more than quadrupled.

The fact that I am now able to add eight new species of *Chlamydopsis*, of which six were certainly taken since the paper of which the present one is a supplement was read (July, 1910), is sufficiently indicative of the perseverance with which these anomalous beetles have been looked for.

It is also a curious fact that (at any rate in the temperate parts of Australia) the guests are more numerous in the cooler parts of the year, and some completely disappear during the summer months, when the ants themselves are more active. This fact may have something to do with the paucity of specimens taken by collectors whose holidays are usually of the briefest during the spring and autumn months.

An asterisk * is prefixed to species previously noted.

ANTS.

Additional species of ants now known to act as hosts of beetles are:—

- Acantholepis Froggatti, Forel.
- Camponotus claripes, Mayr.
- Ectatomma Mayri, Forel.
- Iridomyrmex itinerans, Lowne.
- Odontomachus coriarius, Mayr.
- Orectognathus antennatus, Smith.
- Polyrhachis ammon, Fabr.
- Polyrhachis hexacantha, Er.
- Stenamma longiceps, Smith.



Panera lutea, Mayr.*Ectatomma socialis*, Macl.

There are before me four, evidently co-type specimens, of an ant from Mr. Masters's collection: they were placed with four specimens of the beetle *Tmesiphorus formicinus*, and labelled Mundarlo, with the name *Ectatomma socialis*, the original collector and the original locality. The name is, as I previously suspected, a synonym of *Panera lutea*.

Iridomyrmex glaber, Mayr.

I received this name from the Department of Agriculture at Washington for the species previously referred to as *Colobopsis Gasseri*. I have not been able as yet to check the names of ants with the original descriptions, although I hope to do this later, meanwhile having to take the names on trust. The species is an important one from a coleopterist's point of view, as it is common, widely distributed, and the host of many species of beetles.¹

The true *C. Gasseri*, I am now given to understand, is a rather scarce species, having its nests in old fences, stumps and hollow trees, and from whose nests I have never taken an inquiline of any sort. Nor is it even close in appearance to *I. glaber*.

Previously the name *I. glaber* was received for a moderately common species from New South Wales, with long and fairly numerous setae scattered about. The name struck me as a most inappropriate one, but it appears now that the identification was incorrect.

CARABIDAE.

Nototarus australis, Chaud.

In his catalogue Wasmann records this species as from ants' nests.

**Philophtæus myrmecophilus*, n.sp. (Plate II., Fig. 1.)

♂. Reddish-flavous, appendages and elytral vittae somewhat paler; elytra piceous, the margins narrowly paler, each with a longitudinal vitta commencing near the base and extending to about one-fifth from apex; pygidium and sides of under surface more or less piceous. Lightly clothed with short and somewhat golden pubescence, sparser on head and on middle of prothorax and of under surface than elsewhere; with a few setiferous punctures.

¹ The species previously listed as occurring with this species of ant are: *Falagria Fauveli*, p. 122; *Polylobus colobopsis*, p. 128; *P. intrepidus*, p. 129; *Dabrosoma pubescens*, p. 135; *Ctenisophus morosus*, p. 155; *C. impressus*, p. 155; *Artibeus aurifluus* p. 164; *A. curvicornis*; p. 165; *Seydaemus colobopsis*, p. 181; *S. Daveyi*, p. 182; *Anisotoma myrmecophila*, p. 189; *Rodwayia minuta*, p. 196; *R. orientalis*, p. 196; *Bothrideres tibialis*, p. 210; *Anthicus glaber*, p. 225.

Head moderately large, with moderately dense and somewhat rough but not large punctures, much smaller about base than elsewhere, with a setiferous puncture at the side of, and another just behind each eye. *Antennae* extending to about basal third of elytra. *Prothorax* about twice as wide as long, apex regularly and fairly strongly emarginate; front angles strongly, the hind ones widely and evenly rounded; median line distinct to apex, but interrupted and terminated before base; sides rather widely flattened, with three setiferous punctures, of which the median one is distinctly nearer the subapical than the subbasal one; disc feebly transversely wrinkled, and with a setiferous puncture on each side; with small punctures scattered about, but rather dense and irregular where the margins begin. *Scutellum* subtriangular, with moderately dense punctures. *Elytra* at base wider than widest part of elytra; sides gently rounded and dilated to beyond the middle; with distinct but not deeply impressed striae, the interstices of somewhat uneven widths, and with dense clearly defined punctures, third with four larger setiferous punctures, ninth (the marginal interstice) with an almost regular row of larger punctures. *Pygidium* with dense but somewhat irregular punctures. *Under surface* with rather sparse punctures. *Legs* not very long, front tarsi with three basal joints densely clothed on lower surface, the fourth less noticeably so, middle tarsi with basal joint rather densely clothed about apex. Length 8 mm.

Hab.—Tasmania: Sheffield, Chudleigh, from nests of *Iridomyrmex glaber* (A. M. Lea).

In size and appearance much like *quadripennis* and *Sydneyensis*, but prothorax with emargination of apex more even, and basal angles completely rounded off.

On each elytron, the vitta at the base is confined to the fifth interstice; it immediately dilates so as to include the fourth, at about the basal third it extends to part of the third and sixth, at about the middle it occupies only the third and fourth, and it then contracts so that at its apex it is only on part of the third.

Although not described, a specimen of this species was previously noted (these Proceedings, 1910, p. 122) as having been taken from an ant nest; as since then I have taken another specimen in the same way, it is to be presumed that the species naturally occurs with ants.

Adelotopu' ipsoides, Westw.

On sending a specimen of this species from Geelong Mr. Davey wrote:—"Recently I opened an old established nest of *Iridomyrmex nitidus*, and it contained a fair number of this species; they were quite covered by the ants, but they did not appear to be eating them."

Adelotopus scolytides, Newm.

A specimen of this species was recently taken at Rhyndaston (Tasmania) from a nest of *Iridomyrmex glaber*. The beetle was completely covered by a mass of ants, but the ants were not attacking it.

Illaphanus Stephensi, Macl.

Mr. Davey sent a specimen of this species as from a nest of an *Iridomyrmex* at Pannure (Victoria). I had myself taken specimens from under a stone amongst ants,¹ but thought they were there by accident. This, however, was probably not the case. Mr. Davey, on being written to for information as to how he captured his specimen, wrote: "The *Illaphanus* was crawling along a drive with the ants when I took it."

I have recently taken two specimens of the species, under a stone, close to a nest of *Pheidole Tasmaniensis* at Dunorlan (Tasmania)² and another at the side of a nest of a species of *Monomorium* at Sprent, and another at the side of the nest of a jumper ant (*Myrmecia*) at Evandale Junction.

Illaphanus Macleayi, Lea.

The types of this species were taken under a stone that covered a nest of *Orectognathus antennatus*. At the time it was considered that they were only casually with the ants, but this may not have been the case.

STAPHYLINIDÆ.

Polyglobus piccosobrinnus, n.sp.

Piceous; prothorax and abdomen obscurely paler; legs, palpi and base of antennae flavous. With rather dense and very fine pubescence, longer on abdomen than elsewhere.

Head rather rounded; eyes scarcely projecting. Antennae extending to base of prothorax, lightly inflated towards apex, third to tenth joints transverse, eleventh conical, about as long as three preceding combined. *Prothorax* moderately transverse, front angles strongly rounded, sides thence oblique to base, which is gently rounded; with minute punctures. *Elytra* about once and one-third the width of prothorax, sides feebly, but shoulders strongly rounded, sides about one-fourth longer than suture; with dense minute punctures. *Abdomen* feebly decreasing in width to apical third, thence strongly to apex. Length, $1\frac{1}{2}$, to apex of elytra $\frac{3}{4}$ mm.

1 A small black species, from memory either *Iridomyrmex glaber*, or another species of *Iridomyrmex*.

2 It is now first recorded from Tasmania.

Hab.—Victoria: Geelong, from a nest of *Ectatomma metallicum* (H. W. Davey).

The prothorax is dark, but not black, but regarding it as such it differs from *colobopsis* in having the head small, the prothorax with sides oblique to base instead of rounded and antennae longer, etc. Regarding the upper surface as not entirely black, it would be associated with *Tasmaniensis*, from which it differs in having the prothorax less transverse and darker, and the abdomen not paler at the base than in the middle.

Polylobus brachypterus, n.sp.

Of a rather dingy flavous, head and fifth and part of sixth abdominal segments infuscated. With very fine and short pubescence.

Depressed. *Head* rather longer and less rounded than usual, with small punctures. Antennae lightly incrassated, extending to base of prothorax; third to tenth joints transverse, eleventh subconical, scarcely longer than two preceding combined. *Prothorax* very little wider than long, angles rather strongly rounded, sides and base feebly rounded; punctures indistinct. *Elytra* no longer than prothorax and scarcely wider; punctures indistinct. *Abdomen* parallel-sided to apex of sixth segment. Length, $1\frac{1}{2}$, to apex of elytra $\frac{3}{4}$ mm.

Hab.—Tasmania: Evandale Junction, from a nest of *Pheidole conficta* (A. M. Lea).

A thin pale species, with exceptionally short elytra, that appear too small to cover wings. Although the colours are somewhat as in *pallidominor*, the species is very distinct from that one, being narrower, prothorax less transverse, elytra much smaller, abdomen parallel-sided to apical segment, antennae slightly stouter, etc.

A specimen from Bagdad, from a nest of *Ectatomma metallicum*, probably belongs to this species, but is rather paler (perhaps from immaturity) and smaller.

Polylobus tenuis, n.sp.

Of a rather dingy flavous; head, antennae (base excepted) and elytra flavous brown; fourth, fifth and part of sixth abdominal segments darker, sometimes almost black. With very fine, short, pale pubescence.

Head rounded, punctures very indistinct, eyes moderately prominent. Antennae passing base of prothorax; first joint moderately long, but slightly shorter than second and third combined, these subequal, fourth to tenth transverse, eleventh subconical, as long as two preceding combined. *Prothorax* moderately transverse, sides and base rather strongly rounded; punctures very minute. *Elytra* lightly transverse, scarcely wider than widest part of prothorax, and very

little longer, sides straight and slightly longer than suture; punctures dense and very small. *Abdomen* long, thin and parallel-sided to apex of sixth segment. Length, 3, to apex of elytra 1; variation in length, $2\frac{1}{3}$ —3 mm.

Hab.—Tasmania: Railton (from nests of *Ectatomma metallicum* and *Iridomyrmex glaber*), Stanley (in tussocks at summit of "Nut"), Hobart (in tussocks and fallen leaves), Mount Wellington, Parattah, Launceston, Stonor (A. M. Lea), Victoria, Geelong (from a nest of *Iridomyrmex nitidus*), (H. W. Davey); New South Wales; Glenfield (from a nest of *E. metallicum*), National Park (amongst rotting leaves), Tamworth (Lea).

A narrow shining species, in general appearance close to *Homalota chariessa*, but prothorax without the "four large punctures just before the middle on the disc" of that species. The prothorax is sometimes scarcely paler than the elytra, but is usually conspicuously paler.

Polyglobus quadratipennis, n.sp.

Of a rather bright flavous red, elytra and metasternum darker, middle of abdomen still darker. With dense pubescence rather longer than usual in the genus, the sides, except of abdomen, where they are dense, with a few short hairs.

Head with sides much less rounded than usual; with very small punctures. Eyes fairly large and prominent. Antennae rather stout, passing base of prothorax, fourth and fifth joints feebly, the sixth to tenth strongly transverse, eleventh almost as long as three preceding combined. *Prothorax* about as long as wide, sides and base gently rounded, punctures small and more or less obscured by clothing. *Elytra* quadrate, about one-fourth wider than prothorax, and distinctly longer; with small and moderately dense punctures. *Abdomen* rather narrow and parallel-sided, with strong margins to near apex; punctures fairly dense and distinct, except at tips of the segments. Length, $2\frac{3}{4}$, to apex of elytra $1\frac{1}{4}$ mm.

Hab.—New South Wales: Barraba, from a nest of *Pheidole* sp. (F. A. Rodway).

The elytral punctures from some directions appear to be transversely or obliquely confluent. It is distinctly stouter than most species of the genus occurring with ants.

Polyglobus apianus, n.sp.

Flavous-red, in places deepening to blood-red, legs, palpi and base of antennae paler; a large rounded spot on each elytron, and fourth and fifth abdominal segments black. With short pale pubescence, the sides, especially of abdomen, with fine hairs.

Head more transverse than usual; punctures fairly dense and clearly defined. Eyes fairly large and prominent. Antennae rather lightly thickened towards apex, not extending to base of prothorax; fourth to sixth joints feebly, seventh to tenth moderately transverse, eleventh briefly subconical, about as long as ninth and tenth combined, and slightly but distinctly wider. *Prothorax* about once and one-half as wide as long, front angles strongly rounded, sides thence oblique to base, which is almost truncate; punctures as on head. *Elytra* moderately transverse, about one-fourth wider than prothorax, and along suture about one-third longer, longer at sides; punctures slightly sparser and more clearly defined than on prothorax. *Abdomen* almost parallel-sided, and with strong margins to near apex; punctures fairly dense and clearly defined. Length 2, to apex of elytra 1 mm.

Hab.—New South Wales: Sydney, from a wild nest of the domesticated bee (*C. Gibbons*).

The spot on each elytron is moderately distant from the suture, rather nearer the apex than the base, fairly large, and from above appears almost round, but from the side is seen to be transverse, and almost touching the margin. The middle of the prothorax appears to be vaguely infuscated.

Polyglobus apiciniger, n.sp.

Bright flavous, antennae (base excepted) somewhat darker; head, apex of elytra, metasternum and fifth abdominal segment black. Pubescence very indistinct; except at sides of abdomen.

Head rather short; eyes fairly prominent. Antennae somewhat incrassated to apex, scarcely extending to base of prothorax. *Prothorax* twice as wide as long, rather strongly (for the genus) convex, sides rounded and increasing in width to base, which is gently rounded. *Elytra* almost twice as wide as long, distinctly longer and wider than prothorax; punctures obscured by clothing. *Abdomen* moderately but decidedly decreasing in width to near apex, and then strongly to apex itself; margins comparatively feeble. Length $1\frac{1}{3}$, to apex of elytra $\frac{2}{3}$ mm.

Hab.—New South Wales: Otford, from a nest of *Ectatomma metallicum* (A. M. Lea).

A small robust species, in general remarkably like a very small specimen of *acceptus*, but differing essentially in the prothorax; in *acceptus* the sides of that segment are evenly rounded, with the base no wider than the apex, and considerably narrower than the elytra; in the present species its sides are also rounded, but they are considerably wider at the base than at the apex, with the consequence that they appear to be subcontinuous with those of the elytra. In the shape of the prothorax it agrees with *Tasmanicus*, but that is a much larger

species, with much stronger punctures, etc. The black at apex of elytra is slightly dilated to sides, so that there it occupies about two-fifths of the length, at the suture it occupies about one-third.

**Polyglobus semiopacus*, Lea.

Recently taken in numbers at Otford and Sydney¹ in nests of *Ectatomma metallicum*.

**Polyglobus pallidominor*, Lea.

Mr. Cox has sent a second specimen of this species from a nest of *Iridomyrmex rufoniger*. I have also 20 specimens that were taken in flood débris on the Nepean River by Mr. A. J. Coates.

**Polyglobus Daveyi*, Lea.

A single specimen of this species was taken near Adelaide, by Mr. Griffith, from a nest of *Ectatomma metallicum*.

**Calodera cuneifera*, Lea.

Mr. Davey has sent three specimens from Geelong and Ararat, as having occurred in nests of a species of *Iridomyrmex*.

**Myrmedonia clavigera*, Fvl

Recently taken near Hobart from a nest of *Iridomyrmex glaber*.

Homalota trigonae, n.sp.

Black, shining; elytra piceous-brown; legs, palpi and basal joints of antennae somewhat paler. With very short ashen pubescence, longer on abdomen than elsewhere; sides with a few short hairs.

Head convex, moderately transverse; punctures very indistinct. Antennae not very thin, just passing base of prothorax; first joint as long as second and third combined, fourth to tenth transverse, eleventh subconical, almost as long as ninth and tenth combined. *Prothorax* almost twice as wide as long, sides and base evenly rounded; with a puncture on each side of the middle at about one-third from the base, and with much smaller and dense but rather clearly defined punctures. *Elytra* slightly wider than prothorax, and slightly wider than long; with small, dense, clearly defined punctures. *Abdomen* as wide at apex as at base, the sides very feebly increasing in width to middle; margins strong. *Legs* rather long. Length $2\frac{1}{4}$, to apex of elytra 1 mm.

Hab. New South Wales: Sydney, from a nest of *Trigona carbonaria* (C. Gibbons).

¹ Now first recorded from the mainland.

In general appearance close to *pavens*, but antennae shorter and stouter, and prothorax very decidedly transverse, its sides more strongly and evenly rounded, and disc with two conspicuous punctures. Also close in appearance to *Calodera cuneifera*, but readily distinguished therefrom by the apical joint of antennae. From some directions an extremely faint median prothoracic line is visible.

Homalota curvicauda, n.sp.

Black, shining; antennae and palpi brownish; legs (coxae excepted) flavous, femora paler than tibiae and tarsi. Rather densely clothed with short ashen pubescence, a few hairs on apical sides of abdomen.

Head rather strongly convex, sides rather strongly rounded, eyes not at all prominent; punctures indistinct. Antennae rather thin, extending almost to middle of elytra, first joint distinctly shorter than second and third, these moderately long, fourth and fifth subglobular, sixth to tenth transverse, eleventh subconical or almost wedge-shaped, slightly longer than ninth and tenth combined. *Prothorax* about once and two-thirds as wide as long; sides gently, the base very feebly rounded; with dense and small, but clearly defined punctures. *Elytra* scarcely wider than widest part of prothorax, and with slightly larger punctures, moderately transverse. *Abdomen* with strong margins, and parallel-sided to near apex; punctures dense and small, becoming very small posteriorly. *Legs* rather long and thin. Length $3\frac{1}{4}$, to apex of elytra $1\frac{1}{2}$ mm.

Hab.—Tasmania: Chudleigh, Railton, a single specimen at each place from a nest of *Iridomyrmer glaber* (A. M. Lea).

The Railton specimen when alive had its tail cocked over its back and touching the base of its elytra, and when first seen had much the aspect of a flea. In general appearance close to the preceding species, but antennae paler, legs much paler, elytra darker, prothorax without the two larger punctures, etc.; the sides of the prothorax are more rounded than in *Calodera cuneifera*, and the legs are much paler.

Homalota myrmeciae, n.sp.

Head and elytra black, prothorax, third, fourth and fifth segments of abdomen, and the metasternum dark brown, base and apex of abdomen and antennae of a rather dingy flavous, legs paler. Pubescence very short and fine.

Head moderately transverse, sides rounded, eyes fairly prominent, a shallow depression between them; punctures indistinct. Antennae rather thin, extending to about middle of elytra; first joint distinctly shorter than second and third combined, these moderately long, fourth to tenth each about as long as wide, or feebly transverse, eleventh subconical, slightly longer than ninth and tenth combined. *Prothorax*

depressed, distinctly wider than head, about once and one-half as wide as long, sides angularly dilated at apical third, thence oblique to both base and apex; punctures scarcely visible. *Elytra* slightly wider than prothorax, and along middle about as long, but distinctly longer at sides, punctures dense and very minute. *Abdomen* with strong margins, the sides feebly inflated to about middle, punctures slightly stronger than on elytra. *Legs* moderately long and thin. Length $2\frac{1}{2}$, to apex of elytra 1 mm.

Hab.—Victoria: Lal Lal, from a nest of a species of *Myrmecia* (H. W. Davey).

The angularly dilated prothorax renders this species very distinct.

Conosoma lateripenne, n.sp.

Testaceous-brown, hind angles of prothorax, most of elytra and apical parts of abdomen somewhat paler, legs and antennae almost flavous. Rather densely clothed with short pale pubescence; elytra with a few long black hairs on each side; abdomen with two fascicles of black hairs at its tip.

Head with almost invisible punctures. Antennae moderately stout, not extending to base of prothorax. *Prothorax* about once and two-thirds as wide as long; punctures minute, dense, and more or less concealed. *Elytra* slightly narrower than, and about the length of prothorax, apex gently incurved to middle; punctures slightly more noticeable than on prothorax. *Abdomen* regularly decreasing in width to apex. Length 3, to apex of elytra $1\frac{1}{2}$ mm.

Hab.—Victoria: Sea Lake, from nest of *Iridomyrmer nitidus* (J. C. Goudie).

In general appearance rather close to *rufipalpe*; but the long hairs at the sides of the elytra (there are four on each side) distinguish from that species, and from all others known to me except *myrmecophilum*, from which it is distinguished by being rather narrower, somewhat different in colour, and without long hairs at sides of prothorax and abdomen.

**Conosoma myrmecophilum*, Lea.

Mr. Davey sent two specimens of this species from Geelong¹ (Victoria); without any indication, however, as to how they were obtained. Subsequently he sent another from a nest of *Iridomyrmer nitidus*.

Quedius cuprinus, Fvl.

Mr. Davey has taken a specimen of this species from a nest of *Camponotus nigricaps* at Geelong.

1 It is now first recorded for E. Australia.

Scopaeus interocularis, n.sp.

Brownish-flavous, legs and palpi paler; four basal segments of abdomen, except margins, infuscated; fifth slightly infuscated about base, and feebly infuscated between eyes. With very short pale pubescence, longer at sides and apex of abdomen than elsewhere.

Head, including mouth parts, subquadrate; with dense minute punctures. Antennae extending almost to base of prothorax; first joint stout, about as long as three following combined, second to tenth subequal, eleventh not much longer than tenth. *Prothorax* slightly narrower and slightly longer than head, subovate, apex produced; a shallow depression on each side of base marking off the base of a very feeble longitudinal elevation; punctures as on head. *Elytra* parallel-sided, scarcely longer than wide, the width of prothorax, and with slightly larger punctures. *Abdomen* feebly increasing in width to apex of fifth segment, thence decreasing rapidly to apex. *Legs* not very long; femora rather stout. Length 3, to apex of abdomen $1\frac{1}{2}$ mm.

Hab.—New South Wales: Sydney, from a nest of *Iridomyrmex* sp. (A. M. Lea).

In size and shape much like *S. dubius* and *S. oricollis*, but very differently coloured.

Lithocharis camponoti, n.sp.

Bright flavous red, appendages somewhat paler, apical two-fifths of elytra, and basal two-thirds of upper surface of fifth abdominal segment black. Clothed with short depressed pubescence; sides with a few short hairs, becoming longer and denser towards and at apex of abdomen.

Head, including mandibles, slightly longer than wide, sides almost parallel behind eyes, between them the derm somewhat flattened; with dense minute punctures. Antennae extending to base of prothorax, first joint about as long as second and third combined, each of these a trifle longer than each of the others to tenth, eleventh subconical, about half as long again as tenth. *Prothorax* with front almost the exact width of head, and the angles right-angles; sides gently decreasing in width to base, with basal angles rounded; punctures much as on head. *Elytra* just perceptibly longer than wide, the width of head, basal and apical angles rounded, sides parallel, apex slightly oblique to middle; punctures small but more distinct than on prothorax. *Abdomen* parallel-sided or gently increasing in width to beyond the middle, thence rapidly decreasing to apex, fourth segment distinctly longer than third, fifth longer than third and fourth combined. *Legs* not very long; femora stout. Length $2\frac{3}{4}$, to apex of elytra $1\frac{1}{2}$ mm.

Hab.—New South Wales: Otford, from nests of *Camponotus aeneipilosus* (H. W. Cox and A. M. Lea).

Apparently close to *cincta*, but abdomen not entirely pale, elytra with dark part at, instead of before, apex, and punctures not as described. The dark part at the apex is sometimes slightly cut into along the suture. There are about three hairs on each side of the head, four or five on each side of the prothorax, and about the same on elytra; they appear, however, to be easily abraded.

**Glyptoma myrmecophilum*, Lea.

A specimen of this species was recently taken under rotting bark of a fallen log at Ulverstone.¹

**Oxyteius micropterus*, Lea.

Mr. Davey has taken two specimens of this species from a nest of *Camponotus nigriceps* at Lal Lal (Victoria).

PSELAPHIDAE.

In addition to the species now recorded I have taken a very minute² specimen of this family from a nest of *Iridomyrmex glaber* in Tasmania. It is blackish with pale appendages, and is apparently without a medio-basal prothoracic impression; the head, however, has a rather deep groove on each side, the two conjoined in front, and these combined with an elongated form would appear to exclude it from *Eupines*. As it is a female it appears undesirable to propose a new genus for it.

Narcodes ectatommae, n.sp.

♂. Of a dingy reddish brown, abdomen blackish, club infuscated. Clothed with short, subsquamose clothing, mostly stramineous, but variegated in places (notably on abdomen) with sooty.

Head large; with three shallow impressions, of which the deepest one is in front; base gently incurved to middle, and produced on each side behind the eye; each margin near apex with a small subconical projection, indistinct from some directions. Antennae moderately long, first joint stout, as long (when viewed from the sides) as second and third combined, third distinctly longer than second or fourth, ninth distinctly longer than eighth, about as long as wide, tenth larger, eleventh truncate-ovate, slightly longer than ninth and tenth combined. *Prothorax* decidedly transverse, apical half with flattened and dilated sides, which are obtusely bituberculate (the hind tubercle

¹ Now first recorded from Tasmania.

² It is just perceptibly larger than *Limoniatex australis*, the smallest known species from Australia.

very obtuse) in middle towards base with a moderately large fovea, thence to apex feebly ridged, each side with a rather large and shallow fovea. *Elytra* very short and dilated posteriorly, each with sutural stria strong and dorsal wide and deep at base, and strong to beyond the middle, where it rather abruptly terminates. *Abdomen* large, with wide margins; under surface gently concave along middle. *Metasternum* gently concave along middle, each side with a feeble ridge terminating in an obtuse tooth posteriorly. *Legs* rather short and stout; front trochanters strongly dentate, the tooth itself with a smaller one on its hind margin; front femora with a small acute subbasal tooth. Length $2\frac{3}{4}$ mm.

Hab.—Tasmania: Railton, in a nest of *Ectatomma metallicum* (A. M. Lea).

The size is larger than that of *N. nigriventris*, the head is larger and wider across apex, the prothorax has the sides more suddenly and angularly inflated, and its medio-basal fovea and the elytral striae are deeper. From both sexes of *N. varia* it is readily distinguished by the sides of the prothorax.

On the whole of the upper surface there are more or less dense punctures, but these are more or less concealed until the clothing has been abraded. From some directions the sides of the elytra towards the apex appear to be feebly notched.

Ctenisophus nigropiceus, n.sp.

♂. Blackish-piceous; appendages of a rather dingy red. With very short pale pubescence, giving the upper surface a greyish appearance.

Head wide; with two large but rather shallow inter-ocular foveae. Antennae comparatively short, second joint slightly stouter than first and, from above, apparently slightly longer, third to seventh small, eighth, ninth and tenth about as long as wide, subequal, eleventh about as long as ninth and tenth combined, and a trifle wider. *Prothorax* feebly transverse, widest at about apical third, sides thence oblique to base; with a rather large medio-basal fovea. *Elytra* distinctly transverse; each with sutural stria distinct, the dorsal rather wide towards base, and elsewhere very narrow but clearly defined. Under surface of fourth segment of *abdomen* with a shallow subtriangular impression, indistinct from most directions, whilst from others each of its walls appears to be tipped by a minute tubercle. *Legs* comparatively short (for the genus). Length $1\frac{1}{4}$ mm.

Hab.—Victoria: Geelong, from a nest of *Iridomyrmex*, sp. (H. W. Davey).

Readily distinguished from all previously described species by its dark colour; the tip of the abdomen and the prothorax are not quite

as dark as the rest of the upper surface. The four apical joints of antennae are rather more than half the total length: the eighth is very little longer than the ninth.

**Ctenisophus morosus*, Raffr.

Mr. Griffith has taken this species in Tasmania from nests of *Ectatomma metallicum*: and I have taken three from a nest of *Polyrhachis hevacantha*.

Ctenisophus vernalis, King.

Dr. Ferguson has taken sexes of this species from a nest of termites (*Eutermes*, sp.) at Narromine.

**Ctenisophus impressus*, Sharp.

Mr. Griffith has taken near Adelaide a specimen of this species from a nest of *Ectatomma Mayri*.

Termitophorus hoplocephalus, n.sp.

♂. Reddish castaneous, elytra, tarsi and palpi paler. With moderately dense short pubescence, tip of elytra rather densely clothed, a fascicle of golden hairs on each side of base of head.

Head with two small inter-ocular foveae, front longitudinally impressed between antennary ridges, a small acute conical tubercle or spine behind each eye; densely punctate all over. Antennae moderately long; third to eighth joints transverse, ninth subquadrate, much wider than eighth, and almost as long as three preceding combined, tenth about as large as ninth, scooped out on one side, eleventh lop-sided, and about once and one-half as long as tenth. Palpi with a strong spine on each of the second and third joints, the apical joint strongly produced on one side and acutely produced at apex. *Prothorax* slightly longer than wide, sides widest at about apical third, thence incurved to base; with a small medio-basal fovea, and a larger but shallower one on each side; punctures as on head. *Elytra* lightly transverse; each with dorsal stria, rather wide on basal half and scarcely traceable beyond the middle; with clearly defined punctures, not as dense as on prothorax. *Abdomen* with a strong narrow carina on each side of the second and third segments; lower surface with a very feeble depression in middle of second and third segments. *Trochanters* unarmed; front tibiae excavated in middle of inner surface. Length $2\frac{3}{4}$ mm.

Hab.—New South Wales: Narromine, from a nest of white ants (E. W. Ferguson).

The head is armed behind each eye somewhat as in *T. termitophilus*. In shape it is much like *T. ponerae* and *T. formicinus*, but the head

and club are different. *T. brevicornis* is without the golden basal fascicles, and has much shorter antennae. It is perhaps closest to *T. Kingi* of all the described species, but the elytra have the sulcus on each side much less pronounced, the front tibiae different, and the ventral impressions of different shape and much shallower.

From some directions the front tibiae appear to be scooped out in the middle or bidentate. The eleventh joint of antennae is obtusely produced on one side, and its lower surface is gently concave, the tenth has a small tubercle on one side of its apex.

DAVEYIA, n.g.

Head transverse, bifoveate; a wide thin flange margining each eye. Eyes small, prominent, coarsely faceted. Antennae moderately long, ten-jointed, first rather large, second smaller, the others to ninth small and submoniliform, tenth large. Palpi large, first joint concealed, second rather long and angular, third subtriangular, with several projections at outer edge, each of which has a clubbed hair, fourth much smaller than third and also with projections, its apex with a thin spine or stout seta. *Prothorax* feebly transverse, sides angularly dilated in middle. *Elytra* short, dilated posteriorly. *Abdomen* about as long as prothorax and elytra conjoined, second, third and fourth segments large, with wide margins. *Metasternum* moderately long. *Legs* rather long and unarmed; trochanters large; femora stout; tibiae rather thin, slightly dilated towards apex; tarsi thin, first joint small, second and third rather long; claws small and thin.

The species described below at first resembles a small flattened *Ctenisophus*, but is readily distinguished from that genus, and from all others, by its remarkable palpi and flanges. The latter are wide and very thin, convex on the upper and concave on the lower surface; they are attached to the head partly directly, and partly to the lower surface of the eyes, so that each appears as a remarkable canthus. From above, the flanges appear to completely margin the lower surface of the eyes; their hind inner margin appears to be fringed with fine setae. There is nothing much like them in any described Australian genus except perhaps a vague remnant in some species of *Tmesiphorus*. A distant approach, however, is made by a foreign species, *Ctenotillus costatus*:¹ which Raffray at the time of description referred to the vicinity of *Tmesiphorus*, but later² placed closest (of the Australian genera) to *Leanymus*. The palpi³ of *Daveyia*, however, are very different to those of *Ctenotillus*, and I

1 Raffray, Ann. Soc. Ent. Fr., lxx., 1896, Plate II., Fig. 5.

2 In his monograph in Wytsman's Genera Insectorum, p. 367.

3 It is very difficult to manipulate the palpi, as they snap off almost at a touch.

have seen nothing figured at all like them: the subapical joint has a number of stout hairs, that from some directions appear to be simple, but from others knobbed, and in some lights they look much like the sticky hairs of some species of *Drosera*.

The genus evidently belongs to the *Tyrini*, and for the present may be placed in the vicinity of *Tmesiphorus*. It is with very great pleasure that I dedicate it to such an energetic examiner of ants' nests as Mr. Davey.

Daveyia mira, n.sp. (Figs. 2 and 3.)

♂. Reddish castaneous, elytra and eye flanges somewhat paler. Clothed with short whitish pubescence, moderately dense at tip of elytra, and base of abdomen on under surface.

Head (including flanges) almost twice as wide as long, with two fairly large submedian foveae. Antennae extending to base of prothorax, surface of first, second and tenth joints somewhat uneven. *Prothorax* slightly wider than long, sides strongly and angularly dilated in middle; with a large medio-basal isolated fovea. *Elytra*, across apex, about one-third wider than long; sutural stria on each distinct, the dorsal represented by a short basal groove. *Metasternum* transversely excavated at middle of apex. *Abdomen* with under surface regularly convex, the fifth segment semi-circularly emarginate. Length, 1-1½ mm.

♀. Differs in being slightly larger, legs somewhat shorter, and abdomen with the fifth segment straight at apex.

Hab.—Victoria: Geelong and Portland, in nests of *Iridomyrmer itinerans* (H. W. Davey).

Under a fairly high power the head appears to be covered with small round flattened granules, and rather less distinct ones are to be seen on the prothorax and elytra. From some directions the metasternum of the male appears to have its median excavation extending its whole length, but from others it appears to be apical only, as in the female. Mr. Davey obtained numerous specimens in the nests and their vicinity, and some of the specimens sent were mounted as slides in Canada balsam.

**Pselaphus flavipalpis*, Lea.

There are five specimens of this species in the British Museum from Townsville; two are males, and differ from the females in having the middle of the second ventral segment with a slight longitudinal ridge at its apex. The metasternum is less convex, and about the apex is somewhat excavated.

**Pselaphus geminatus*, Westw.

There is a specimen of this species in the Macleay Museum from South Australia.

Margaris imperialis, Schfs.

In his catalogue, Wasmann states that this species is myrmecophilous. The only specimen I have seen was obtained in flood débris.

Hamotopsis auricomus, Lea.

Mr. Davey has taken five specimens of this species from nests of *Amblyopone australis*.

Eudranes carinatus, Sharp.

The type of this species was taken from an ants' nest by Commander J. J. Walker.

Rybaris ectatommae, n.sp.

Bright castaneous, legs (knees excepted) and palpi somewhat paler. With short, pale pubescence, interspersed, especially on abdomen, with some longer hairs.

Head highly polished; with a (for the genus) rather small and partly open fovea close to each eye, frontal impression shallow. Antennae rather long, first joint apparently (when seen from above) no longer than second, but really (when seen from the side) distinctly longer, third to sixth rather small, seventh larger, eighth slightly smaller than seventh but larger than sixth, ninth and tenth small, eleventh subovate, apex pointed, about as long as three preceding joints combined. *Prothorax* moderately transverse, widest at about apical third; with a small medio-basal fovea, indistinctly connected along base with a comparatively small fovea on each side. *Elytra* about as long as wide; each with sutural stria distinct, dorsal distinct at base, but not traceable beyond middle; epipleural furrow absent, but marginal stria distinct; punctures small but fairly distinct. *Metasternum* rather shallowly impressed. *Abdomen* somewhat flattened along middle. *Legs* rather long and apparently unarmed. Length, $1\frac{3}{4}$ mm.

Hab.—New South Wales: Blue Mountains (E. W. Ferguson), Otford, from a nest of *Ectatomma metallicum* (A. M. Lea).

In size and general appearance close to *R. 5-foveata*, but antennae and prothoracic impressions different. The inflation of the seventh and eighth joints is not very strong, but is such that they are noticeably larger than the preceding or following ones. The two specimens before me appear to be males, although they have no distinctive sexual features on the under surface and legs.

Rybaris villosa, n.sp.

♂. Of a rather pale, dingy castaneous, tarsi and palpi paler. Indistinctly pubescent, but with numerous distinct and rather long hairs.

Head with a moderately large, round, deep, partially open fovea close to each eye, with a rather shallow impression in front. Antennae with first joint longer and slightly wider than second, third to eighth small, ninth slightly larger, tenth distinctly larger than ninth, eleventh ovate, apex pointed, distinctly wider than tenth, and about as long as four preceding combined. *Prothorax* feebly transverse, widest slightly in advance of middle: with a feeble, isolated, medio-basal fovea, towards base on each side with a fairly large fovea. *Elytra* about as long as wide, each with sutural stria distinct, the dorsal foveate at base, but not traceable to middle; epipleural furrow very short and indistinct. *Metasternum* excavated at middle of apical third. *Abdomen* flattened along middle of under surface, each side towards base with a small tubercle behind the coxa. *Legs* rather long and apparently unarmed. Length $1\frac{1}{3}$ – $1\frac{1}{2}$ mm.

♀. Differs in having metasternum less impressed, abdomen convex along middle of under surface, and without tubercles, and legs and antennae somewhat thinner.

Hab. New South Wales: Otford, from a nest of *Ectatomma metallicum* (H. W. Cox), from a nest of *Stenammina longiceps* (A. M. Lea), Sydney (Macleay Museum).

A small species with long straggling hair, especially on the elytra, where it is more noticeable than in the preceding species.

Rybaris tibialis, Raffr.

R. bryophila, Lea.

M. Raffray's name was published in 1909, and consequently, not being noted in the Zoological Record, was unknown to me at the time I named *R. bryophila*, which is a synonym of it. Raffray's figure shows the tenth joint of the antennae as longer than in any of the numerous specimens I have examined.

A single male of this common moss species was recently taken from a nest of *Iridomyrmex glaber*.

Rybaris 5-foveata, Raffr.

Mr. Gibbons sent a specimen of this species as having been taken, at Hornsby, from a wild nest of the hive bee.

**Eupines flavoapicalis*, Lea.

Recently taken from a nest of *Eutermes*, sp., at Sydney.

Eupines indistincta, Lea.

A male of this species was recently taken, at Latrobe, from a nest of *Ectatomma metallicum*.

**Cyathiger punctatus*, King.

A specimen before me was taken by Mr. George Masters at Peter-sham (the original collector and one of the original localities), and it can, I think, be fairly regarded as a co-type.

Its metasternum, not mentioned by King, is concave in the middle, with a strong curved ridge or carina slightly inwards from, but marking the outlines of each of the hind coxae, the carina at the highest about its middle, so that from the side it appears as a conical tubercle or tooth. The under surface of the abdomen is largely concave, each side of the concave portion being bounded by a line of obtusely pointed tubercles, forming the ridge mentioned by King. The club is decidedly concave on its upper surface, but the hollow is neither shining nor very deep.

Cyathiger simulator, n.sp.

♂. Reddish-castaneous. With very minute pale pubescence.

Head moderately large, rather feebly convex; densely punctate; a shallow depression between eyes (which are small and prominent), and another between antennae. Antennae stout, first joint almost as long as second and third combined, but from above apparently the length of second, second to fifth transverse, of equal length, sixth the same length but more rounded, seventh as large as head, subreniform, convex on lower surface, hollowed out and highly polished on upper surface. *Prothorax* feebly transverse, sides widest at about apical third; punctures as on head; with a very small median subbasal fovea, and a slightly larger one on each side. *Elytra* about as long as wide, sides gently rounded, without striae; punctures rather coarser than on prothorax, but otherwise the same. Upper surface of *abdomen* apparently not segmented, evenly rounded; punctures as on prothorax; lower surface with apical segments appearing within a slight subcircular depression, basal segments with a large depression conspicuously bounded on each side by a ridge or row of obtuse tubercles. *Metasternum* largely excavated in middle, and on each side of depression with a large, acute and slightly curved tooth. *Legs* long and thin; trochanters obtusely dentate; front femora minutely denticulate, middle femora with a small subbasal tooth, concealed from most directions; hind tibiae bent downwards in middle, and somewhat longer than the others; tarsi terminated by a single claw, the basal joint large. Length $1\frac{1}{4}$ mm.

Hab.—New South Wales: Otford, from a nest of *Stenammas longiceps* (A. M. Lea).

At once distinguished from *punctatus* by the club; this is larger, of somewhat different shape, and much more hollowed out¹ with the hollow highly polished; from above it appears as a thin hollow shell. The metasternal depression is bounded on each side by ridges or carinae; of these there is one on each side, commencing at the middle coxa, and extending to the middle, when it turns back so as to become V-shaped; at its end it meets a similarly forked carina, the point of meeting being marked by an acute recurved spine or tooth, below this there is a smaller tooth; in *punctatus* the sculpture is on a smaller scale and less complicated.

The specimen obtained (in September) remained motionless for a little while after the covering stone was removed. It then started to move slowly, but as soon as touched folded its appendages together, much as do the species of *Diplocotes*.

Euplectops ectatommae, n.sp.

Bright pale castaneous, abdomen very little darker; appendages almost flavous. Rather densely clothed with very short pubescence.

Head moderately transverse; a large fovea on each side, not quite closed in front and meeting in front; base distinctly notched in middle. Antennae rather thin, almost extending to base of prothorax; club three-jointed, ninth and tenth joints rather small, although larger than the preceding ones, eleventh ovate, apex obtusely produced. *Prothorax* rather lightly transverse, sides rather strongly rounded at apical third, thence decreasing in width to base; near base with a strong transverse impression, slightly dilated in middle, and foveate on each side; median line rather short and shallow, not extending to apex or subbasal impression. *Elytra* parallel-sided, slightly longer than wide, subsutural and dorsal striae commencing at base in small foveae, the dorsal striae scarcely traceable to middle; punctures indistinct. *Abdomen* slightly longer than elytra, very feebly increasing in width to apical fourth; second segment with a small transverse basal tubercle, second to fifth subequal in length. *Legs* moderately long. Length $1\frac{1}{4}$ mm.

Hab.—New South Wales: Sydney, from a nest of *Ectatomma metallicum* (A. M. Lea).

A small narrow parallel-sided species; fairly close to *depressicollis*, but larger, more parallel-sided, cephalic impressions more pronounced, those on the prothorax not the same, etc.; *basalis* is more convex and polished, antennae shorter and club stouter, etc.; *ziczac* has much stronger impressions and *bryophilus* very different clothing.

From some directions the cephalic impressions appear to be closed

¹ Somewhat as in Raffray's⁴ figure of the club of *C. Simoni* from Borneo: Rev. d'Ent. 1895, Pl. 2, fig. 21.

in front, but from others they are seen to be only shallower there, and they really meet in front, so that combined they appear to form a short broad Λ , with a raised Λ immediately behind.

Plectusodes pubescens, n.sp.

♂. Reddish-castaneous, appendages somewhat paler. Densely clothed with very short pale pubescence.

Head rather wide; each side with a wide depression, meeting in front, and deepened posteriorly so as to be almost foveate; base distinctly notched, the space in front of notch elevated in the form of a wide Λ . Antennae thin, slightly passing base of prothorax, second to eighth joints small, ninth and tenth larger but scarcely forming part of a club, eleventh elongate-ovate, apex rather acutely produced. Palpi very small. *Prothorax* feebly transverse, depressed; sides rounded in front, apex wider than base, near base strongly transversely impressed, the impression foveate at each side and subfoveate in middle; median line fairly deep, but not extending to apex or subbasal impression; with small dense punctures. *Elytra* slightly longer than wide, slightly wider than widest part of prothorax, sides gently rounded, dorsal stria on each distinct at base, but scarcely traceable to basal fourth; with small dense punctures. *Abdomen* about the length and width of elytra, parallel-sided to near apex; under surface with a large shallow impression on apical segment. *Legs* rather long; front trochanters subtriangularly dentate. Length $1\frac{1}{2}$ mm.

Hab.—New South Wales: Sydney, from nests of *Ectatomma metallicum* and *Polyrhachis ammon* (A. M. Lea).

Close to *breviceps*, but narrower and with denser although still short pubescence. From the sides and from certain other directions the metasternum of that species appears to be sulcate throughout its length, but in this species the surface is scarcely visibly impressed along the middle. The prothorax is also less inflated than in *breviceps*.

From some directions the head appears to be conspicuously bifoveate. Judging by the abdomen and trochanters the three specimens before me are all males.

Plectusodes cavifrons, n.sp.

♂. Bright reddish-castaneous, appendages paler. Rather sparsely clothed with very short pubescence, interspersed with a few longer but not very conspicuous hairs.

Head wide; with a wide impression in front, curved round at sides and foveate close to each eye; base distinctly notched, the space in front of notch in the form of a wide elevated Λ . Antennae moderately thin, just passing base of prothorax, first joint very little larger than

second, second slightly larger than third, third to tenth small, the ninth and tenth slightly larger than the eighth, but not forming part of a club, eleventh ovate, slightly longer than ninth and tenth combined, its apex acute. Palpi very small. *Prothorax* as long as wide, moderately convex; sides strongly rounded, base much narrower than apex; near base with a strong bisinuous impression, somewhat expanded in middle and terminated at each side in a strong fovea; median line short and feeble; punctures very indistinct. *Elytra* about as long as wide, base wider than prothorax, sides feebly dilated posteriorly, apex incurved to middle; sutural stria on each narrow and commencing in a very small fovea, the dorsal represented by a distinct impression at base only; punctures very indistinct. *Abdomen* the width of elytra and somewhat longer, rather strongly convex on upper surface, and slightly flattened along middle of lower surface; apical segment with a median impression. *Metasternum* depressed along middle of apical half. *Legs* moderately long; hind trochanters obtusely dentate. Length $1\frac{3}{4}$ - 2 mm.

Hab.—Tasmania: Chudleigh, Kindred, Dunorlan, from nests of *Iridomyrmex glaber*.

In appearance fairly close to the preceding species, but larger, more brightly coloured, differently clothed, narrower and less depressed, punctures smaller, etc. From *breviceps* it differs in being larger, narrower and more convex. In general appearance it is somewhat like *Euplectops carinatifrons* and *E. villosus*, but the median line of the prothorax is feeble and isolated.

The base of the prothorax appears to be rather suddenly narrowed, and the sides in front of the lateral foveae appear to be almost tuberculate; the median line is shallow and scarcely visible from some directions, and is traceable neither to the apex, nor to the subbasal impression, but it is somewhat variable individually. The five specimens before me appear to be all males.

Mesoplatus, two species.

Mr. C. Gibbons took a specimen of this genus in a wild nest of the domesticated bee near Sydney; it is unfortunately a female, so is not now described. Another female of the same species, also from Sydney, is in the Macleay Museum.

Mr. H. W. Cox took a specimen of an allied species, also unfortunately a female, from a nest of *Stenamma longiceps*.

Limoniates camponoti, n.sp.

Pale castaneous, abdomen slightly darker, appendages flavous. Very finely pubescent.

Head moderately transverse, notched in middle of base; each side with a strong oblique groove, the two meeting in front. Eyes moderately prominent. Antennae not extending to base of prothorax; basal joint fairly stout, third to eighth rather small, ninth and tenth rather small, but forming part of club, eleventh subovate, as long as three preceding combined. *Prothorax* moderately transverse, depressed, widest at about apical third, each side near base with a strong curved impression, the two meeting in middle, their junction subfoveate; each side with a longitudinal impression, invisible from above, distinct towards base, but disappearing before apex. *Elytra* subquadrate, shoulders slightly raised; base with a few small foveae; dorsal striae scarcely traceable beyond base; punctures minute. *Abdomen* as wide as elytra, and slightly longer; parallel-sided to near apex. *Legs* moderately long. Length, 1 (vix) mm.

Hab.—New South Wales: Sydney, from a nest of *Camponotus claripes* (A. M. Lea).

Close to *subterraneus* but club different; dorsal striae of elytra shorter and less impressed. In general appearance it is close to *Euplectops depressicollis*, but is rather smaller, with the cephalic and prothoracic impressions different.

Articerus Griffithi, n.sp.

♂. Reddish castaneous, appendages scarcely paler. Elytra with short stiff golden setae, abdomen sparsely clothed but with a conspicuous fascicle on each side of base.

Head densely punctate; without a longitudinal impression. Antennae very wide and flattened, basal third subtriangular, thence scarcely diminishing in width to apex, which is truncate and with an elliptic outline. *Prothorax* strongly transverse, sides widest near apex, thence oblique to base, with a large but rather shallow medio-basal fovea; punctures not quite as dense as on head. *Elytra* moderately transverse, sides lightly dilated posteriorly; sutural striae distinct; punctures clearly defined, coarser at base than elsewhere. *Abdomen* transversely excavated at base, where the sides are distinctly constricted, the excavation scarcely produced backwards at each side; under surface depressed along middle. *Metasternum* largely excavated, the wall on each side of excavation with a distinct triangular tooth. Front *trochanters* rather obtusely armed; hind coxae with a large triangular curved tooth; femora moderately stout; tibiae inflated towards apex. Length $1\frac{2}{3}$ mm.

Hab.—South Australia: From a nest of *Iridomyrmex* sp. (H. H. D. Griffith).

Close to *A. excavipectus*, but metasternum of male still more largely excavated¹ with the walls of the excavation angular or dentate on

¹ The excavation commences quite close to the base instead of about the middle.

each side of the middle, prothorax with medio-basal fovea smaller, elytra without impunctate spots, and the teeth of the hind coxae even larger and somewhat curved.

The females of the two species are much alike, but when placed side by side certain differences of degree (as in size of prothoracic fovea and width of head) can be noted; although these are of such a nature that it would be inadvisable to identify a specimen as either *excavipectus* or *Griffithi* from the female alone, although the males are readily distinguishable by the metasternum.

**Articercus vitidicollis*, Raffr.

Mr. Davey has taken two males that belong to this species; they agree perfectly with the description, except that the antennae are not twice the length of the head, but in this respect they agree with the figure accompanying the description. The species differs from *constrictiventris* in having the prothorax much more polished, with a shallow transverse subbasal impression suddenly deepened at its middle. The excavation on the upper surface of abdomen is transversely suboblong, and with the constricted parts of its walls less triangularly encroaching.

Hab.—Victoria: Portland, in a nest of *Iridomyrmex rufoniger*.

**Articercus Mastersi*, Lea.

There is a specimen of this species in King's collection (now in the Australian Museum) standing under the name of *angusticollis*; it differs, however, from the description and figure of that species in being considerably smaller, the prothorax decidedly transverse (in the figure of that species the prothorax is drawn as longer than wide), the antennae shorter and stouter, and the abdominal excavation totally different.

Mr. Davey has recently taken specimens in nests of *Iridomyrmex gracilis* at Ararat, and Mr. T. S. Hall sent me another that was taken at Castlemaine, and mounted in Canada balsam many years ago. Mr. H. H. D. Griffith also has recently taken sexes of the species at Adelaide.

The male differs from the female in having a spine marking the apex of a ridge on the front of the prosternum, its metasternum is terminated by an oblique acute spine, the under surface of the abdomen is excavated. The front trochanters are spinose, all the tibiae are inflated at apex, the front pair terminated by a small spine, and the middle pair by a curved hook; the hook and the tarsus combined from some directions appear like a small claw.

**Articerus Pascoeus*, Sharp.

The British Museum sent seven unnamed specimens of this species for examination; but they certainly belong to *Pascoeus*. In the male the fovea on the upper surface of the abdomen is produced backwards at the middle, but is more or less rounded, in the female it is subangularly produced backwards.

The species is very close to *Mastersi*, and I am unable to define any character to distinguish the females. But the males differ in the front of the prosternum; this being armed in *Mastersi*, and unarmed in *Pascoeus*.

**Articerus dentipes*, Lea.

Mr. H. H. D. Griffith has taken, at Adelaide, nine specimens of this species in nests of a small ant. The female (previously unknown) differs from the male in having the metasternum regularly convex and unarmed, the abdomen convex on under surface, and the legs thinner and unarmed.

**Articerus irregularis*, Lea.

A male before me, taken at Glenfield, from a nest of *Iridomyrmex gracilis*, appears to represent a variety of this species. It differs from the type in being slightly smaller, in the fovea of the under surface of abdomen much smaller and deeper in proportion, and the subbasal impression on each surface of the antennae less noticeable. Mr. H. W. Davey has recently obtained a female at Geelong. It differs from the male in having the under surface of abdomen and the metasternum regularly convex, and its legs unarmed. The lop-sidedness of the antennae is also less pronounced, although quite distinct.

**Articerus constricticornis*, Lea.

The malê has the under surface of abdomen with a wide shallow depression towards the base, and the tibiae more inflated towards the apex.

Hab.—New South Wales: Roper Creek.

Articerus cylindricornis, Raffr.*A. cylindricornis*, Lea, n.pr.

M. Raffray's name was published in 1909, consequently his paper was not included in the Zoological Record by the time my own name was published (1910). There is no need to change my name, however, as the species is the same as M. Raffray's, and his specimens were almost certainly taken by Mr. Goudie, from whom I also first received it.

**Articerus curvicornis*, Westw.

Recently taken near Sydney from nests of *Iridomyrmex rufoniger*.

**Clavigeropsis Australiae*, Lea.

A second female of this species was taken under a stone, from a nest of *Iridomyrmex gracilis* at the side of the George's River at Glenfield (New South Wales).

Mr. Cox has also taken the species in the Illawarra district. And there is a specimen in the British Museum labelled as from Queensland.

PAUSSIDAE.

**Anthropterus brevis*, Westw.

Recently taken from nests of *Campopodus aeneopilosus* and of *Ectatomma metallicum*.

SCYDMAENIDAE.

Scydmaenus impavidus, n.sp.

Bright castaneous, head and prothorax somewhat darker than elsewhere, palpi and tarsi flavous. Upper surface glabrous except for some sparse clothing at sides of prothorax and a fascicle on each side of base of head.

Head moderately transverse, not bilobed between antennae. Eyes very small and not prominent. Antennae rather long and thin, second joint longer than third, seventh slightly longer than sixth; club four-jointed, eighth joint not much longer, but about twice the width of seventh. *Prothorax* slightly longer than wide; base with three shallow foveate impressions, all connected by a shallow depression. *Elytra* at base no wider than base of prothorax, somewhat obliquely dilated to the middle (where the width is twice that of the prothorax), thence rounded to apex. *Legs* rather long and thin; hind coxae rather distant. Length $1\frac{3}{4}$ mm.

Hab.—South Australia: Port Lincoln (J. J. Walker).

The type was given to me by Mr. C. French, as having been taken by Commander Walker, from the nest of a short, thick, stinging ant.¹

The antennae are rather longer than in the following species, and in others having the elytra glabrous, the size is larger, and the elytra are more strongly narrowed to the base, so that their middle is about twice the width of their base.

On close examination a few minute setae may be seen towards the base of the elytra, but they are so few and indistinct that I think the elytra could quite fairly be regarded as glabrous.

1 A sample of the ant did not accompany the beetle.

I have not described the elytral punctures of this and of all the following species of the genus, as they are so extremely faint and sparse as to be scarcely, if at all, visible. On the head and prothorax they appear to be always absent or at least invisible under a Coddington lens.

Scydmaenus bifasciculatus, n.sp.

Reddish-castaneous, elytra (suture excepted) somewhat paler; appendages still paler (almost or quite flavous); metasternum almost or quite black. Upper surface glabrous except for rather dense, dingy hairs at sides of prothorax; and a distinct fascicle on each side of base of head.

Head transverse, rounded between antennae. Eyes small and rather prominent. Antennae moderately long and rather thin; club conspicuously four-jointed. *Prothorax* about as long as wide; each side of base with a distinct fovea, the two connected by a transverse impression. *Elytra* wide and depressed; base distinctly wider than base of prothorax; sides rounded and increasing in width to about the middle, thence decreasing in width to apex. *Legs* moderately long; hind coxae not close together. Length $1\frac{1}{4}$ mm.

Hab.—Victoria (Macleay and British Museums): Geelong, from nests of a small variety of *Ectatomma metallicum*, Portland (H. W. Davey).

Smaller than *glabripennis*, differently coloured, and with the club somewhat smaller; the outlines, however, are almost exactly the same. Also close to *Daveyi*, but larger, prothorax more densely clothed at sides, head wider and more conspicuously fasciculate on each side of base, and elytra wider, with the apex more rounded. *Ectatommae*, an inquiline of the same species of ant, is about the same size, but is of a dingier colour, with shorter antennae and very different clothing.

The metasternum varies in colour from black to no darker than the elytra; two specimens, probably immature, are almost entirely flavous. On several of the specimens there are very faint remnants of pubescence about the base of the elytra, but they are so extremely faint, that the elytra could quite fairly be regarded as glabrous, as they certainly are in some specimens.

The impression connecting the basal foveae of the prothorax together appears rather shallow and feeble from some directions, but from others it appears to be quite deeply impressed but rather narrow; as results the foveae themselves, according to the points of view, appear either widely separated, or almost touching.

Scydmaenus incerticornis, n.sp.

Castaneous, elytra diluted with flavous about apex, but suture somewhat darker; legs and part of abdomen of a rather dingy flavous, but tarsi and palpi paler. Elytra with distinct and suberect cloth-

ing, but rather sparse and not very long; prothorax rather sparsely clothed, even at the sides, middle of disc glabrous; head sparsely clothed, the fascicle on each side of base small and loosely composed.

Head lightly transverse, feebly impressed between antennae. Eyes small and prominent. Antennae thin and moderately long; club rather indistinctly four-jointed. *Prothorax* slightly longer than wide, more convex than usual; with two small foveae near base, and some distinct punctures almost at extreme base; each side with a strong oblique impression, which is invisible from above. *Elytra* moderately long, at extreme base no wider than prothorax, sides obliquely dilated to near the middle, and then rounded to apex. *Legs* rather long; hind coxae moderately separated. Length, $1\frac{1}{3}$ mm.

Hab.—New South Wales: Sydney (Macleay Museum), from nests of *Ponera lutea* and of *Stenammina longiceps* (A. M. Lea).

In size and general appearance fairly close to *Paramattensis*, but antennae decidedly thinner, prothorax with different impressions, and no darker than elytra, the latter rather narrower at base, and with shorter clothing. *Colobopsis* is about the same size, but is flatter, wider, and with the sides of the prothorax very differently clothed. *Ectatommar* is dingier, with the club stouter, and elytra much more sparsely clothed. *Duplicatus* is slightly smaller, more sparsely clothed, and with the eighth joint of antennae larger, in proportion, than the seventh. *Microps*, also occurring with *Ponera lutea*, has much smaller eyes, and is otherwise different.

The eighth joint of the antennae is about midway in width between the seventh and ninth, and is slightly shorter than the ninth, so that while it appears best to regard it as belonging to the club, this might almost fairly be regarded as three-jointed, or at least with the joints of subcontinuous width. The seventh is almost exactly the shape of the sixth; the eleventh is about as long as the two preceding combined. The prothoracic foveae are feebly connected with the lateral impressions, but are completely isolated from each other. Scattered about the extreme base are some large punctures, a few of which might almost be regarded as small foveae.

A specimen given to me by Mr. Cox, and taken by him in the Illawarra district, from a nest of *Stenammina longiceps* differs from the type in having the prothoracic foveae less conspicuous (from some directions they appear to be altogether absent), the elytral clothing decumbent, and the antennae somewhat stouter. Quite possibly, however, it represents a new species.

Scydmaenus insigniventris, n.sp.

♂. Black; base of prothorax and the elytra (suture widely infuscated) castaneous, antennae somewhat paler; legs almost, the tarsi and palpi quite flavous. Elytra with sparse and moderately

long stramineous hairs; clothing on head and prothorax somewhat shorter and darker, on the latter becoming dense on sides, and on the former forming a feeble fascicle on each side of base.

Head (excluding neck) distinctly transverse, flattened between antennae. Eyes of moderate size and very prominent. Antennae long and thin; club four-jointed. *Prothorax* slightly wider than long; base with a strong transverse impression, with a foveate expansion at each end. *Elytra* moderately long, somewhat depressed, base slightly wider than prothorax, sides evenly rounded and widest across middle. *Abdomen* with fourth segment conspicuously armed. *Legs* moderately long; hind coxae rather distant; femora stout, especially the front pair. Length $1\frac{3}{4}$ mm.

Hab.—Tasmania: Devonport, from a nest of *Ectatomma metallicum*, Stanley, in tussocks at summit of "Nut" (A. M. Lea).

The type has its neck exposed, and this is seen to be castaneous. The antennae at a glance appear to have the joints subcontinuous in width, but the seventh, although distinctly longer and wider than the sixth, is less than half-way in width between that joint and the eighth; the eleventh is not much shorter than the ninth and tenth combined. The prothorax has two rather large transverse foveae, connected together by a short impression, but they could quite fairly be regarded as expanded portions of the impression. Each side also is obliquely impressed, but the impression is invisible from above, and, as in many other species, is more or less obscured by clothing.

The fourth segment of the abdomen, towards each side, has a long, and somewhat obtuse, reddish tooth, projecting backwards at an angle of about 45 degrees; each is about half the length of the hind tibiae, and the two are connected basally by a semitransparent, membranous flap, that is thickened in the middle, causing an appearance as of a much smaller median tooth.

**Scydmaenus glabripennis*, Lea.

There are two specimens of this species in the Macleay Museum from the Tweed River, and five in my own from the Clarence.¹

**Scydmaenus colobopsis*, Lea.

Recently taken from nests of *Amblyopone australis*.

A specimen from Dunorlan, from a nest of the original ant, differs from the types in being considerably darker, almost piceous.

A specimen from an unnoted ants' nest at Sea Lake² sent by Mr. Goudie, differs from the types in having the impression at base of prothorax narrower across the middle, but I can find no other distinctions.

1 Now first recorded from the mainland.

2 Now first recorded from the mainland.

**Seydmaenus castaneoglaber*, Lea.

Dr. Ferguson has taken a specimen of this species on the Blue Mountains¹ from a nest of *Ectatomma metallicum*. Its eyes, by their colour alone, are indistinguishable from the rest of the head, and the right club is almost black, the left being normal; these, however, appear to be individual aberrations.

**Seydmacnilla pusilla*, King.

In October, 1910, specimens of this species were taken from nests of *Ectatomma metallicum*, *Ponera lutea*, *Stenammina longiceps*, *Acautholepis Froggatti*, and a species of *Monomorium*.

**Seydmacnilla constricta*, Lea.

Four specimens were recently taken at Glenfield, New South Wales, from a nest of termites. There is also a specimen in the Macleay Museum from Gayndah.

Heterognathus myrmecophilus, n.sp.

Bright castaneous, somewhat darker about junction of prothorax and elytra. Upper surface with not very dense, but almost evenly distributed pale pubescence.

Head moderately long and convex. Eyes small, and latero-frontal, but not very prominent. Antennae rather long, passing middle coxae, eight basal points subcylindrical, the others forming a rather narrow club. *Prothorax* rather strongly convex, distinctly longer than wide, sides rather strongly rounded but becoming oblique towards base. *Elytra* more than twice the length of prothorax, not much wider at base, but fully twice as wide across middle; sides rather strongly and obliquely dilated to near middle, and then rounded to apex. *Legs* long; hind coxae widely separated; femora subclavate. Length 2 mm.

Hab.—Tasmania: Marrawah, Latrobe, from nests of *Amblyopone australis* (A. M. Lea); Victoria: Lal Lal, from nests of same species of ant (H. W. Davey).

About the size of *curvatus*, but prothorax not carinated and tenth joint of antennae decidedly smaller. Longer, wider and more convex than *gracilis* and antennae longer. Also close to *Seydmaenus optatus* (which is probably a *Heterognathus*), but larger, with decidedly thicker antennae, which have the club three—instead of two—jointed. The ninth joint of the antennae properly belongs to the club, although its base is no wider than the apex of the eighth, but it is distinctly

¹ Now first recorded from the mainland.

² Now first recorded from the mainland.

longer, with the apex distinctly wider: the tenth is about once and one-half the length of the ninth, but at base scarcely wider, although increasing in width to apex; the eleventh is subconical, about once and one-half the length of tenth and near base slightly wider.

There are some very small punctures on the prothorax and elytra, but they are almost concealed by the clothing. The apical segment of the abdomen (on five specimens before me, probably all males) is large, with its hind margin semicircular, so that the three preceding segments are conspicuously narrowed across their middle. The middle trochanters each have a small acute tooth, projecting inwards and slightly forwards, but owing to its position it is not easily seen.

**Phagonophana latipennis*, Lea.

There is a specimen of this species in the Macleay Museum from Rope's Creek, and Dr. Ferguson has two from the Blue Mountains.¹

**Phagonophana macrosticta*, Lea.

Two specimens from South Australia, in the British Museum, belong to this species but differ from the types in having the dark markings considerably reduced in intensity; this, however, is a common variation between Australian and Tasmanian specimens.

A third from Victoria labelled "*Kingi*?" in Dr. Sharp's writing also belongs to the same species and has the markings still more reduced. The species, apart from markings, may be readily distinguished from *Kingi*, by its femora being much less clavate; the clothing and antennae are also different.

TRICHOPTERYGIDÆ.

Rodwayia hirsuta, n.sp.

Pale reddish castaneous, appendages slightly paler. With pale, and, for the genus, long pubescence.

Head with outline continuous with that of prothorax, about twice as wide as long. *Prothorax* rather strongly convex, about once and one-half as wide as long, sides strongly rounded, hind angles produced backwards to clasp elytra. *Elytra* about as long as prothorax, and at base not as wide, gently decreasing in width to apex, which is widely rounded. Intercostal process of *prosternum* moderately notched at apex. *Femora* very flat and compressed. Length, $\frac{5}{6}$ mm.

Hab.—New South Wales: Otford, three specimens from a nest of *Stenamma longiceps* (A. M. Lea).

In size resembling *R. ovata*, but readily distinguished from all others of the genus by its comparatively long pubescence; under a compound power the hairs look like coarse bristles. With a Cod-

¹ Now first recorded from E. Australia.

dington lens each hair can be picked out when the insect is viewed from the side; in the others of the genus this cannot be done owing to their extreme shortness. The prosternal process is rather more parallel-sided than in *orientalis*, and rather more deeply notched at apex, although less so than in *minuta*.

Although Mr. Cox and I examined many nests of the ant named, no more than the three specimens described were obtained; from a close-by nest to that from which they were taken, Mr. Cox obtained several specimens of *R. ovata*, and these represent our total captures of *Rodwayia* in its nests in New South Wales.

**Rodwayia orientalis*, Lea. (Fig. 4.)

Recently (September and October, 1910), about Sydney, Otford, etc., Mr. Cox and I saw thousands of specimens of this species in nests of the green-head (*Ectatomma metallicum*). In some large nests, not uncommonly hundreds were in sight at the same time. Mr. Davey has also taken the species at Lal Lal (Victoria).

In addition to the previously recorded species of ants, it is now known to occur with *Amblyopone australis*, *Polyrhachis hevacantha*, *Camponotus aeneopilosus*, *C. nigriceps*, *C. claripes*, *Myrmecia pyriformis*, *Myrmecia*, sp., and *Iridomyrmex*.

The elytra of some specimens seem more pointed than on others, but this is probably due to shrivelling at the sides. The prothorax also appears larger on some specimens than on others, but this seems due to its base being more extended over the elytra. The colour also is slightly variable in intensity of shade.

**Rodwayia minuta*, Lea.

Specimens of this species are usually taken from amongst the eggs and larvae of the ants.

Numerous specimens from Sydney differ from Tasmanian ones in being a trifle larger, and rather more densely clothed; but as there appear to be no other distinctions they probably represent a variety only.

**Rodwayia ovata*, Lea.

Recently taken by Mr. Cox and myself from nests of *Stenammas longiceps* at Otford; Mr. Davey has taken it at Lal Lal and elsewhere in Victoria from nests of *Polyrhachis hevacantha*, *P. Froggatti* and *Polyrhachis*, sp.

CILAMYDOPSIS.

Of this remarkable genus sixteen species are now known to me, and seven others (including *Orectoscelis*) have been described. Species have now been taken in all the Australian States, and it is probable

that many more will yet be taken, as all are extremely rare. *Formicicola* was originally taken by the late Rev. R. L. King in nests of *Camponotus acneopilosus*; Mr. Foggatt has taken it in nests of the same ant, and I also have so taken it, but only one specimen, although dozens of nests of that ant were specially examined for the beetle. Mr. Davey has now taken eleven specimens of *longipes* in nests of *Ectatomma metallinum*, and Mr. H. H. D. Griffith and I have taken it in nests of the same species of ant at Port Lincoln. Recently I obtained another species, *ectatommae*, with that ant, and Mr. Hacker has taken a specimen of *glabra* in company with it. Mr. Davey took three of *tuberculata* in nests of *Iridomyrmex rufoniger*, and Mr. Gibbons one of *epipleuralis* with another species of *Iridomyrmex*. Mr. Goudie, Mr. Davey and I have each taken (*carbo*, *granulata* and *pseudocephala* respectively) a single specimen in nests of *Pheidole*. The hosts of the other species are not recorded, but, as will be seen, the beetles occur in the nests of at least four genera of ants, and they probably occur with others. They have also been taken from August to January.

Those known to me may be tabulated as follows:—

- A. Prothorax with a strong double process in front.
 - a. Process considerably overhanging head - - - *carbo*, Lea.
 - aa. Process feebly overhanging head
 - b. Elytra granulate but with very indistinct punctures - - - - - *granulata*, n. sp.
 - bb. Elytra not granulate but with clearly defined punctures - - - - - *pseudocephala*, n. sp.
- AA. Prothorax without such a process.
- B. Hind legs fully twice the length of the body - *longipes*, Lea.
- BB. Hind legs much shorter
 - C. Prothorax with a very strong discal tubercle - *tuberculata*, n. sp.
- CC. Prothorax without such a tubercle.
- D. Prothorax without narrowly upturned margins
 - c. Shining - - - - - *glabra*, Lea
 - cc. Opaque - - - - - *opaca*, n. sp.
- DD. Prothorax, at least in front, with narrow upturned margins.
- E. Elytra without conspicuous striae on disc.
 - d. Elytra with distinct punctures on disc - - - - - *variolosa*, Lea.
 - dd. Elytra without such punctures.
 - e. Prothorax with conspicuous net-like punctures - - - - - *excavata*, Lea.
 - ee. Prothorax with feeble punctures at most
 - f. Elytra tipped with rather long hairs - - - - - *cavicollis*, n.g.
 - ff. Elytra with sparse and very short setae at tip - - - *formicicola*, King.

- EE. Elytra with conspicuous striae on disc.
 F. Prothorax with dense but rather small punctures - - - *epipleuralis*, n. sp.
 FF. Prothorax with conspicuous net-like punctures.
 G. Elytra about scutellar region with a highly polished non-striated space.
 g. Clothing of epaulettes very short and almost hidden - *striatella*, Westw.
 gg. Clothing of epaulettes very conspicuous - - - *reticulata*, Lea.
 GG. Elytra about scutellar region strongly striated.
 H. Such striae transverse - *ectatommae*, n. sp.
 HH. Such striae curved - - *latipennis*, n. sp.

Since the above table was prepared I have examined the four species described by the Rev. T. Blackburn;¹ they are all very singular insects.

Sternalis.—This species belongs to the group whose other members are *carbo*, *granulata* and *pseudocephala*.

Comata.—This species has highly polished prothorax, striated at the sides, and elytra with fascicles of extraordinary length arising from the epaulettes.

Pygidialis.—This species has the hind body margined with a conspicuous row of small teeth, and the prothorax with three acute carinae, which, although not in contact with each other, divide the disc, as it were, into three large areolets.

Inaequalis.—The body parts of this species are somewhat like those of *longipes*, but the epaulettes are of different shape and differently clothed, the hind legs are considerably shorter, with their tibiae compressed and inflated, and the club of antennae considerably larger.

Chlamydopsis tuberculata, n.sp.

Dark reddish brown; margins of prothorax and all appendages somewhat paler, abdomen (basal two-thirds of first segment excepted) still paler. Prothorax with a few stiff setae, py- and propygidium with denser and shorter setae, two golden-red fascicles within each shoulder.

Head somewhat rounded between antennae, feebly convex; with small granules. Antennae when at rest completed fitted into cavities; first joint large and somewhat boomerang shaped; last joint about half the size of first, the intermediate joints small. *Prothorax* moderately transverse, apex narrower than base, sides thickened and strongly raised, base and apex narrower and less strongly raised;

1 He has also an apparently undescribed species from Queensland.

disc with a large median tubercle, feebly double at its tip; with numerous small distinct punctures. *Elytra* subquadrate, coarsely and irregularly punctured; shoulders notched out; with a strong sub-basal depression ending outwardly at the base, and supplied on each side of scutellar region with an oblique ridge, the depression without punctures; epipleurae with more regular sculpture than discs. *Under surface* smooth, shining and almost impunctate; metasternum feebly impressed along middle. *Legs* long, tibiae inflated. Length $1\frac{3}{4}$ - $2\frac{1}{4}$ mm.

Hab.—Victoria: Ballarat, from a nest of *Iridomyrmex rufowiger* (H. W. Davey).

A small species readily distinguished from all others of the genus by its very conspicuous median prothoracic tubercle.

The legs are sometimes infuscated in parts. The fascicles project obliquely forwards; they are both small, but the inner one is considerably larger than the outer one on each shoulder. At a glance the elytra appear to have square shoulders, but the spaces where the true shoulders should be are excised; the false shoulders are smooth and impunctate at their tips. The tibiae are compressed and inflated, with their outer edges rounded but not angular, as in others of the genus, although from some directions the front pair appear somewhat angular towards the base. The tarsi are fitted into grooves in the tibiae, the tibiae into the femora, and the front legs into prothoracic grooves.

The three specimens sent by Mr. Davey (two have been returned to him as co-types) are apparently females, as each has a process (apparently an ovipositor) with two inner projections, extruded from the tip of the abdomen.

Chlamydopsis cavicollis, n.sp.

Of a uniform dark chestnut-brown, with rather straggling stiff yellowish setae; absent from greater portion of pronotum and depression and sides of elytra; near shoulders with conspicuous golden fascicles.

Head between antennae about as long (to mouth parts) as wide, flat, finely shagreened; with small but distinct punctures. Antennae when at rest completely fitted into cavities. *Prothorax* fully twice as wide as the sides are long, but along middle about one-third longer than sides; these almost straight and strongly raised, front margin sinuous and strongly raised, but somewhat thinner than sides; disc gently undulated and finely shagreened. *Elytra* decidedly wider than prothorax, apices widely and separately rounded; near base with a wide, transverse, shining, irregular depression, which is continued to each side, where it emerges as a narrow curved slit, but is partly

concealed by the fascicles; about scutellar region with an obtuse elevation on each side, each shoulder from above appearing as a raised, narrow, curved epaulette, at its tip almost meeting a strong projection from the side; between each epaulette and the middle is a large obtusely triangular elevation, strongly elevated to its tip. In parts shagreened and towards apex with small (setiferous) granules. Epipleurae with distinct striae converging to subhumeral slit, the upper parts polished and without striae. *Under surface* shagreened and in places with irregular punctures. *Prosternum* with a narrow deep stria, commencing close to each coxa, and curved round so as to terminate at the extreme base at the shoulder. *Metasternum* with a narrow median line. *Legs* long and thin. Length $4\frac{1}{2}$ mm.

Hab.—New South Wales: Sydney (type in Macleay Museum).

A large species very unlike any previously described; the strongly raised prothoracic margins cause the disc to appear concave.

The fascicles on each elytron are four in number, two are directed forwards and two backwards, so that they meet or irregularly cross at their tips; the outer are smaller than the inner ones, and each is separated from its fellow by a distinct gap. The legs are all longer than the entire body, the hind pair being the longest; the tibiae are not strongly inflated or angular, but the front pair are somewhat dilated on each side of the tarsal groove. The front femora are too long to be received into the (rather shallow) prothoracic grooves.

I have not attempted to manipulate the antennae of the type, as they are completely fitted into their receptacles; the first joint appears large and about twice as long as its greatest width; the club is only partly concealed, and apparently can be extruded even when the first joint is at rest.

Chlamydopsis ectatommae, n.sp.

Black; appendages chestnut-red. With a few short pale stiff setae scattered about; a small and somewhat golden fascicle or pubescent membrane overhanging each depression towards the base.

Head somewhat rounded; with large, round, shallow punctures or areolets. Antennae large, first joint with similar punctures or areolets to those of head, curved, its outer edge somewhat grooved, club subcylindrical, lightly curved, almost as large as first; intermediate joints combined much shorter than first, or club. *Prothorax* moderately transverse, sides incurved to middle; margins not narrowly elevated, but apex gently raised, disc convex; with punctures or areolets as on head. *Elytra* about as long as wide; towards base with a large depression, which towards each side becomes vaulted and does not touch the sides, about base with a feeble elevation on each side; shoulders raised into feeble epaulettes, each marked off

inwardly by an oblique impressed line. With conspicuous longitudinal striae, except in depression, where they are transverse, and about shoulders, where they are somewhat irregular. Epipleurae striated throughout, the striae more or less converging to a subhumeral space. *Pro-* and *mesosternum*, base and sides of metasternum, parts of abdomen, py- and propygidium, and under surface of front legs, with sculpture as on head. Metasternum, with a narrow median line. *Legs* rather long; tibiae strongly inflated, the inflated parts suddenly cut off towards the base, so as to appear strongly angular. Length $2\frac{1}{6}$ mm.

Hab.—New South Wales; Gladesville, near Sydney, from a nest of *Ectatomma metallicum* (A. M. Lea).

A black species in general appearance close to *striatella*, but with conspicuous transverse striae about the scutellar region; the epaulettes are also somewhat different.

The depression, instead of being continued to the epipleurae, as in some other species, terminates some distance from each side, in a large, deep cavity or fovea, above which is the small fascicle. The outer walls of the cavities for the antennae are very thin, and when looked down into appear of a rather light reddish brown; from outside, however, they appear almost black. The front legs are entirely received into excavations, when their sculpture appears to be as that of the prosternum.

Chlamydopsis latipennis, n.sp.

Dark reddish brown, in places almost black; shoulders and appendages paler. With very short, sparse and irregularly distributed setae; subhumeral depressions with short, stiff, golden fascicles.

Head and antennae much as in preceding species, except that the large punctures or areolets are somewhat larger, and that the club is slightly larger than the first joint. *Prothorax* about twice as wide as long, sides gently incurved to middle and not raised, apex sinuous and distinctly raised, except in middle, where the elevation is but slight, disc strongly convex, but scarcely tuberculate in middle; with punctures or areolets as dense as on head, but more oval in shape. *Elytra* slightly wider than long, sides gently rounded towards base with a large and (for the genus) rather shallow depression, which towards each side becomes somewhat irregular. Shoulders each appearing as a feeble epaulette, and marked off inwardly by a deep and almost straight line. *Pro-* and *mesosternum*, and py- and propygidium with sculpture as on head, except that it is finer. Metasternum with a narrow median line, with large round punctures about middle, a row of punctures margining each middle coxa and fairly coarse punctures at sides; elsewhere smooth and almost or quite

impunctate. Abdomen with irregular punctures, those on middle of first segment as on middle of metasternum. *Legs* long and thin. Length, 3 mm.

Hab.—N.W. Australia (type in Macleay Museum).

The prothoracic punctures are larger than in any other species known to me.

There are four small but distinct fascicles on each side of the sub-basal depression, two being directed forwards and two backwards, the outer ones are slightly larger than the inner ones; there also appear to be remnants of others. The depression itself, from above, appears to be in three parts, a median space as in other species (except that it is somewhat shallower, with the subsutural elevations less noticeable) and a large round foveate space, interrupted by fascicles, nearer the side than the middle of each elytron. The elytra about the shoulders have sculpture much as on the head; on the basal part of the depression the surface is mostly smooth, but about its middle the punctures appear curved, and then to near the apex as very elongated ones or broken striae; about the apex they curve round, becoming wider than long. The epipleurae are smooth (much as if cicatrised) in a line with the subbasal depression, and towards this space all the punctures or irregular striation appear directed. Parts of the under surface are finely shagreened. The hind legs are about the length of the entire body, the others are somewhat shorter; the front femora are not fully receivable into excavations; the tibiae are angular towards the base (the hind pair less noticeably than the others) and thence to apex each has a narrow flange, but the flanges are only of such a width that the greatest width of the tibiae is about equal to the width of the tip of the femora.

Chlamydopsis epipleuralis, n.sp.

Chestnut brown; in places somewhat infuscated. With moderately long golden setae, absent from pronotum.

Head with numerous large shallow punctures or areolets. *Antennae* with first joint large, strongly curved inwards and strongly angular outwardly, with punctures or areolets as on head; club elongate—ovate, much smaller than first joint, and scarcely as long as intermediate joints combined. *Prothorax* about thrice as wide as the sides are long, sides gently incurved to middle and feebly elevated; apex more noticeably elevated, and directly from above, its median half straight but thence oblique to sides; disc moderately convex; surface with dense and very shallow punctures or very small areolets; a rather small depression or shallow fovea on each side near base, the two equidistant from each other and from the sides. *Elytra* slightly longer than wide; towards base with a large depression.

breaking out at the sides on the upper edge of the epipleurae; a wide, feeble, transverse elevation on each side of the scutellar region. Each shoulder in the form of a raised epaulette, obtusely notched at its apex and sculptured as on head: separated from the rest of elytra by a deep, straight line; inwards from this line a raised subtriangular space, with its tip close to the tip of the epaulette, the two points almost meeting two points of each elytron behind them, between which portion of the subbasal depression appears as a fovea. *Under surface* shagreened, and with sculpture, except that it is finer, as on head. *Metasternum* with a narrow median line. *Legs* long; tibiae strongly inflated, the inflated parts suddenly angular, and rapidly decreasing in width at about the basal third. Length $2\frac{3}{4}$ mm.

Hab. New South Wales: Hornsby, from a nest of *Iridomyrmex*, sp. (C. Gibbons).

In general appearance fairly close to *formicicola*, but the prothorax with more distinct and different punctures (much as in *variolosa*) the subscutellar and subhumeral elevations somewhat different, and the striation alone will readily distinguish the species from *variolosa*.

The club, though large, is considerably smaller than in others of the genus. The upper surface of the elytra is marked by fine longitudinal striae (except towards the base); but on the epipleurae the striae are deep, and are all directed towards the outer edge of the subbasal depression. Although when seen directly from above the apex of the prothorax appears in straight lines, when viewed directly from behind it appears to be gently sinuated or lobed. The front femora are too long to be received into the rather shallow prosternal excavations. The hind tibiae are somewhat longer than the others, but are in other respects much the same. I cannot see any distinct fascicles or membranes within the subhumeral depressions, but there appear to be remnants of such.

var. *Mastersi*, n. var.

A specimen, from South Australia, in the Macleay Museum, appears to represent a variety of this species. It differs in being slightly larger (3 mm.); elytral striation much more distinct; prothorax with the apex, as viewed from behind, more lobed, and its punctures rather deeper; punctures of under surface more clearly defined, and py- and propygidium with fine pubescence in addition to setae. On its prothorax there are four small darkish spots, placed, as it were, at each corner of a square; on the type the basal ones are not distinct, as the whole of the basal fourth is infuscated.

Chlamydopsis pseudocephala, n.sp.

Chestnut-brown, in parts slightly darker; appendages slightly paler. With short, pale, stiff setae, nowhere very dense, but denser on

pygidium than elsewhere. A small fascicle or pubescent membrane within each subhumeral depression.

Head, between antennae and mouth parts, about as long as wide, very feebly concave; with deep distinct punctures. *Prothorax* moderately transverse, sides lightly incurved to middle; median half of apex strongly and obliquely raised, with summit bilobed, the lobes strongly divided down middle, and separated from each side by a narrow triangular groove, which is open in front and closed behind, rather nearer the base than apex: densely punctate and shagreened, but about base with punctures only. *Elytra* subquadrate, each shoulder deeply and obliquely sulcate, the sulcus opening out posteriorly, so that each side of the base appears elevated, and each side behind the sulcus still more elevated, with moderately dense and clearly defined punctures along middle, becoming smaller and sparser towards sides; a very fine stria each side of suture. *Under surface* with dense and usually clearly defined punctures, but becoming very dense on prosternum; middle of prosternum with a narrow deep groove. *Legs* short and wide. Length $1\frac{3}{4}$ mm.

Hab.—Tasmania: Latrobe, from a nest of *Pheidole Tasmaniensis* (A. M. Lea).

The smallest of the genus. There were not many ants in the nests whence the type was taken, and when in the nest it looked remarkably like a head of one of the soldiers, amongst a small group of whom it was noticed. It evidently belongs to the same section of the genus as *sternalis*, but is considerably smaller than that species, prothorax not bisinuate at sides and elytral punctures not mixed with striae.

The median apical half of the prothorax is strongly elevated in two lobes, the lobes marked off behind by a deep impression and in front by a conspicuous impression, so that they appear as two tubercles, straight and touching on their inner edges, and rounded on their upper and outer edges. The punctures are so dense across the middle of the prothorax that they cause its surface to appear opaque.

On account of the minute size of the type, I did not venture to prise out the antennae, of which only the large basal joint of each (which is somewhat curvilinearly triangular in shape) and the tip of the club is visible. The legs are completely fitted into receptacles on the under surface, and these also were not prised out; they are short and wide, the tarsi entirely concealed, the tibiae (as visible) slightly wider than the femora, curved outwardly and apparently not angular: the tip of each of the hind femora just cuts into the elytral margin.

Chlamydopsis granulata, n.sp. (Fig. 5.)

Colour and clothing as in preceding species.

Head with central portion subcircular, gently concave with distinct punctures. Basal joint of antennae large, triangularly dilated in middle, club elongate-ovate, about half the size of basal joint, the intervening ones small. *Prothorax* as in preceding species, except that the frontal elevations are stouter, have their outlines more rounded, and that the excavation behind them is larger. *Elytra* as in preceding species, except that the punctures are very small, and indistinct, and that the surface is granulated posteriorly, and subgranulated elsewhere. *Prosternum* with punctures as on pronotum, the middle deeply grooved. *Metasternum* with distinct but not very large punctures, the punctures becoming much smaller and somewhat sparser on basal segment of abdomen. *Tibiae* strongly dilated, the four front ones angular towards base, the others rounded. Length, 2½ mm.

Hab.—Victoria: Geelong, from a nest of a species of *Pheidole* (H. W. Davey).

Closely allied to the preceding species but larger, elytra with scarcely visible punctures, the surface granulated, and punctures of metasternum and basal segment of abdomen not of even size and considerably smaller. It is possible that the specimen should be treated as representing a variety of the preceding species, rather than as distinct, but the differences in the elytral sculpture are so pronounced, that it appears best to regard the differences as specific. In some lights, vague remnants of elytral striation are visible.

Chlamydopsis opaca, n.sp.

Black, opaque; sides of prothorax, sides of elytra at basal third, their epipleurae, abdomen and appendages of a more or less dingy red. Glabrous.

Head vertical, face slightly concave and with small punctures. Each basal joint of antennae about as large as exposed portion of head; somewhat triangular in shape, inner edge bisinuate, outer gently rounded, and upper notched. *Prothorax* feebly convex, about twice as wide as long, margins not thickened and very feebly raised, outlines somewhat angular; surface finely shagreened and with numerous small punctures. *Elytra* subquadrate, sides feebly undulated; with a strong, narrow, transverse impression at apical fourth, with a narrow golden membrane on front edge of impression, occupying the median third of each elytron; an oblique line from each shoulder almost to the membrane; surface finely shagreened and with dense and rather coarse punctures, becoming finer at base, sides and apex;

epipleurae with dense minute punctures, and with fairly numerous larger ones. *Prosternum* smooth and shining in front, but elsewhere shagreened. *Metasternum* shagreened and densely and finely punctate; with a narrow median line. *Abdomen* highly polished except parts of the sides, and most of the middle of the basal segment, which is shagreened and with rather coarser punctures than on *metasternum*. *Femora* wide; tibiae angularly dilated from base to basal third, and then rounded to apex, all wide, but the hind pair wider and less angular than the front pair. Length $4\frac{1}{2}$ mm.

Hab.—New South Wales: National Park (W. Du Boulay).¹

Closer to *glabra* than to any other described species, but upper surface shagreened and opaque, elytra with conspicuous punctures, the transverse subbasal impression narrower and more parallel-sided, its dilated portion narrower, with a faint line running in from each shoulder (not a trace of this is in *glabra*) suggesting the position of the epaulettes of other species, epipleurae with conspicuous punctures and the under surface opaque, except front of prosternum and most of abdomen. The outlines as given for *glabra*, however, are exactly as in this species. The type has the head completely retracted within the prothoracic cavity, and, fearing injury, no attempt was made to force it out.

**Chlamydopsis formicicola*, King.

**C. striatella*, Westw.

**C. inquilina*, Lewis.

Mr. Lewis recently wrote to me of these species:—

"*C. formicicola*, King, differs from *striatella*, Westw., by being darker¹ in colour, less quadrate in form (the elytra being longer), by the thorax being acutely angulate at the anterior angles, and the surface is less opaque and less distinctly granulate, by the elytra having the two elevations behind the scutellum much less oblique and somewhat acutely pointed at their ends. The elevations in *striatella* are somewhat short, distinctly divided in the middle, oblique, and end on each side obtusely. *C. inquilina* differs from both species by being nitid, and the thorax is much less transverse, and is parallel laterally, the edges in front and at the sides being uniformly and more strongly elevated, the elytra also have the elevations behind the scutellum perfectly transverse, not oblique, and they are longer and acute at the ends, and there is scarcely any discernible median partition. The legs of *inquilinum* are more robust, a character

1 A son of the Du Boulay who took the first described species of the genus.

1 This is evidently an error, as *formicicola* is more or less reddish, and *striatella* was described as piecous-black. My own specimen of *striatella*, from the type locality (Swan River), is considerably darker than the type of *formicicola*; but as Mr. Lewis wrote that his specimen of *striatella* was from New South Wales, it seems possible that his identification of that species was not correct.

especially obvious at the bases of the tibiae and the median angles of the tibiae are all less acute. My specimens of *inquilina* and *striatella* are from Liverpool, New South Wales. I think that the elevations on the elytra behind the scutellum are likely to afford good specific characters should many more species be brought to light."

**Chlamydopsis longipes*, Lea.

Of this species, Mr. Davey recently wrote to me:—

"I made a fine haul of *C. longipes* the other day, took three in the one nest under a stone, one a small specimen, and two large ones; you might not think it (judging by their legs), but my experience is that they are very difficult to spot, they seem to favour nests built under pieces of ironstone, and when they are at rest with their legs all tucked away, they have a remarkable likeness to the nodules on this stone, and all I have taken have always been on ironstone with the green ants."¹

Mr. Davey has taken the species at Ararat, a fresh locality.

**Chlamydopsis glabra*, Lea.

There is a specimen of this species in the Queensland Museum. It differs from the type in having the elytra rather more conspicuously punctured (much less conspicuously than in *opaca*, however), and the prothorax of a dingy red, with the edges narrowly black, and the middle of the base obscurely piceous.

It was taken by Mr. Hacker at Brisbane, under a stone, from a nest of *Ectatomma metallicum*; and in sending it he wrote:—"It did not attempt to escape, but kept turning round and round in the same place; and, when it did move, it had a curious jerky run different to any other beetle I've seen."

NITIDULIDAE.

Brachypeplus inquilinus, n.sp. (Fig. 6.)

Dark piceous-brown: sides of prothorax, base of elytra and all the appendages reddish. Upper surface with very short and rather indistinct pubescence, prothorax and elytra distinctly fringed with short setae: under surface with distinct and somewhat golden pubescence.

Head about twice as wide as long, a distinct impression towards each side on clypeal suture; with dense and rather small, but clearly defined punctures. Antennae scarcely longer than head; first joint stout, about as long as three following combined; club subcircular.

¹ *Ectatomma metallicum*.

Prothorax less than twice as wide as long, wider at base than at apex, the sides flattened, with the flattened parts narrowed to apex; punctures on disc much as on head, but becoming slightly coarser towards sides. *Elytra* slightly wider than prothorax, distinctly wider than long; distinctly but not strongly striated, the interstices densely punctate. *Abdomen* with basal segments fully as wide as elytra; upper surface with punctures as on head, under surface with similar, but more or less concealed punctures; third, fourth and fifth segments each with a shallow depression on each side, third about as long as first, twice as long as second, slightly shorter than fourth, and much shorter than fifth. *Legs* short and stout. Length 4 mm.

Hab.—New South Wales: Hornsby, from a wild nest of the hive bee (C. Gibbons).

In general appearance somewhat like a very wide specimen of *basalis*, but much less parallel-sided, the pale markings of elytra occupying much less of the base (they scarcely pass the tip of the scutellum), and nowhere touching the suture. The clothing also is somewhat different. The lateral fringes of the prothorax and elytra are quite conspicuous, although less so than in *auritus*. The scutellum appears very distinct on account of being darker in colour than the base of the elytra.

Brachypeplus blandus, Murray.

Mr. C. Gibbons also took two specimens of this species from a wild nest of the same bee.

Carpophilus planatus, Murray.

Mr. Gibbons took a specimen of this species from a nest of *Trigona carbonaria*.

**Pria rubicunda*, Macl.

Three specimens recently taken by Mr. Davey from a nest of *Iridomyrmex nitidus*.

TRETOTHORACIDÆ.

**Tretotharax cleistostoma*, Lea.

Mr. Hacker has taken numerous specimens of this species in nests of a second species of ant, *Odontomachus coriarius*.

CUCUJIDÆ.

Cryptomorpha delicata, Blackb.

A specimen, apparently representing a variety of this species, was taken at Railton (Tasmania) from a nest, built amongst stones, of a small form of *Ectatomma metallicum*, some distance from the nearest

tree. It moved quite rapidly amongst the ants, and I think its presence there was not at all accidental.

The specimen differs from the typical form of *delicata* in having the elytra more or less stained with piceous; the base and apex are less stained than elsewhere, but the shades of colours are not sharply limited.

BYRRHIDAE.

**Microchaetes scoparius*, Er.

Mr. Davey has taken two specimens of this species from a nest of *Ectatomma metallicum*. A specimen previously sent by him as from a nest of a species of *Camponotus* probably belongs to the species, but is too abraded for certainty. I have taken one of the species myself, from a nest of *Pouera lutea* near Sydney.

PTINIDAE.

Polyplocotes castaneus, n.sp.

Bright castaneous; prothorax somewhat darker. Middle of sterna and basal segment of abdomen with dense, and somewhat golden pubescence; rest of abdomen and prothorax very sparsely pubescent, elytra glabrous.

Head strongly transverse; eyes rather acutely projecting. Antennae passing base of prothorax, first joint stout and subgranulate, the others shining, second, third and fourth each about as long as wide, fifth slightly shorter, sixth and seventh still shorter, eighth about as long as sixth and seventh combined, and distinctly wider, its apex truncated and base rounded, ninth narrower than eighth, and a little more than half its length. *Prothorax* slightly longer than wide, sides rounded in front and constricted near base; near base strongly transversely depressed, the depression terminated in a fovea on each side; densely and more or less longitudinally strigose, with a few punctures scattered about. *Elytra* ovate, strongly convex; base truncate and each side with four small deep impressions; with regular rows of small punctures, the interstices each with a series of still smaller punctures. Three basal segments of *abdomen* rather large, their sutures obliterated across middle, with fairly numerous punctures. *Legs* rather long. Length, 2 mm.

Hab.—N.W. Australia: "Sharp's Collection" (type in British Museum).

The latero-basal foveae of the prothorax are of considerable size, but invisible from above. From some directions the elytra of the type appear to be covered with regular rows of large punctures; but from others these are seen to be watery-looking marks only, such

as occur in many specimens of *Cordus kospes*: from most directions they are invisible. The head in front of the antennae is quite invisible from above, is strongly sculptured, and (in the type) has the mandibles resting between the front coxae.

In general appearance close to *Diplocotes Howittanus*, but antennae nine-jointed only. Westwood regarded *Diplocotes* as distinct from *Polyplacotes* on account of the typical species having the antennae eleven-jointed; but two species of the former genus are now known to have ten-jointed antennae; and so, later on, it will probably be considered advisable to unite the two genera, and to regard the species having nine, ten or eleven jointed antennae, as belonging to sections only.

Paussoptinus dolichognathus, n.sp.

Castaneous, knees slightly infuscated. Very sparsely pubescent: but sterna between coxae with dense, whitish pubescence.

Head about thrice as wide as long, front gently bisinuate; with dense, partially concealed punctures. Eyes prominent and apparently acute. Mouth parts produced so as to appear like a flattened rostrum. Antennae large and wide, their bases almost touching; first joint large, its front edge strongly curved, second very small and quite concealed from above, third to ninth each much wider than long, the joints slightly increasing in size to ninth, tenth about as long as eighth and ninth combined, its apical edge incurved to middle. Palpi concealed. *Prothorax* slightly longer than wide; base wider than apex, sides dilated to basal third (but not dentate), then narrowed to near base, and then dilated to base; across basal third strongly impressed, the impression slightly dilated in middle, but not foveate, densely, conspicuously and more or less longitudinally strigose. *Elytra* subovate, strongly convex; base narrow and with eight small foveae; feebly striated, the interstices finely strigose, and with scarcely visible flattened granules. *Legs* rather long and flattened. Length $3\frac{1}{4}$ mm.

Hab.—C. Australia: Killalpanima (Rev. H. J. Hillier).

The type and only specimen known to me has been returned to the British Museum. It differs from *laticornis* in having the antennae with one joint less, the apical joint much larger and of different shape, mouth almost rostrate, prothorax differently impressed and unarmed, etc. *Brevipennis* (unknown to me) is described as having the antennal joints differently proportioned, the prothorax with a profound basal fovea, and its sides tridentate, etc.

Looking straight at the face below the antennae, there appears to be an acute ridge on each side marking off a strong depression; in the middle is an acute, narrow Ω -shaped elevation, with a small

tubercle between its tips. Then the mandibles commence; they are very curiously shaped, truncated at apex, with their tips crossing. The whole of the projecting parts are rather more than two-fifths of the total depth of the head.

TENEBRIONIDAE.

Hyois cancellata, Lea.

Mr. Davey has taken a specimen of this species from a nest of *Pheidole*, sp.

Hyois nigra, Blackb.

In examining the contents of the nest of a mound building species of *Iridomyrmer* at Ulverstone I obtained nine specimens of this species.¹

Cardiothorax aeripennis, Blackb.

Recently at Otford Mr. Cox obtained two specimens of this species, singly, from nests of *Stenammas longiceps*; and I obtained two from another nest of the same kind of ant.

LAGRIIDAE.

Lagria formicicola, Lea.

Dr. Ferguson informs me that he has taken and seen numerous specimens of this species in nests of *Ponera lutea*; in several nests there were at least 20 specimens of the beetles.

XYLOPHILIDAE.

Xylophilus alpicola, Blackb.

Three specimens obtained from nests, near Sydney, of *Ponera lutea*.

BRENTHIDAE.

Cordus hospes, Germ. (Fig. 7.)

In October, 1910, in examining some nests of *Iridomyrmer nitidus* at Glenfield (New South Wales), I saw thousands of specimens of this beetle. In parts of the nests they were clustered so thickly together, that from a space, a square inch in extent, several dozens could have been taken. The ants moved freely about them without in any way interfering with them. The beetle also occurs in nests of *Stenammas longiceps* and of *Iridomyrmer itinerans*.

1 Now first recorded from Tasmania.

COCCINELLIDAE.

Rhizobius hirtellus, Crotch.

A specimen of this species was taken near Hobart from a nest of *Iridomyrmex glaber*, where it was feeding on mealy bugs (*Dactylopius*, sp.).

EXPLANATION OF PLATE II.

- Fig. 1. *Philophaeus myrmecophilus*, Lea.
2. *Daveyia mira*, Lea.
3. *Daveyia mira*, Lea, palpus.
4. *Rodwayia orientalis*, Lea.
5. *Chlamydopsis granulata*, Lea.
6. *Brachypeplus inquilinus*, Lea.
7. *Cordus hospes*, Germ.